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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,643	06/23/2003	Eduard Erhardt	2454.1093	6122
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STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EXAMINER PATEL, CHIRAG R	
			ART UNIT 2454	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/600,643

**Applicant(s)**

ERHARDT, EDUARD

**Examiner**

CHIRAG PATEL

**Art Unit**

2454

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on the response on July 8, 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 5) ☒ Claim(s) 1-6 and 8-25 is/are pending in the application.
- 5a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 1-6 and 8-25 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-C100)  
Paper No(s)/Mail Date \_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 8-23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ofek (US 6,549,921) in view of Stewart et al. – hereinafter Stewart (US 6,901,519)

As per claim 1, Ofek discloses a computer system connected to a data communications network, said system comprising:

a first computer; (Col 4 lines 1-22; first data storage facility)

a second, redundant computer that is independent of the first computer; (Col 4 lines 1-22; second data storage facility)

a computer-to-computer connection between the first computer and the second computer enabling the first computer is configured to match with the second computer by comparing a first work result of the first computer with a second work result of the second computer; (Col 7 line 64-Col 8 line 10; Col 10 line 66-Col 11 line 31; Figure 6: item 101: both local and remote system generate a status (work result) of the corresponding track; Figure 6: items 102, 106 performs the comparison process of the

1st and 2<sup>nd</sup> work result; Fig. 6: item 110 ; Col 11 lines 28-32, resynchronizes system based on value of the vector) and

Ofek fails to disclose at least one computer-to-network connection to connect both the first and second computers to the data communications network independent from the computer-to-computer connection so that receipt of any data from the data communications network is limited to the first computer and transmission of any data to the data communications network is limited to the second computer; wherein at least an initial processing of the data received from the data communications network is limited to the first computer, wherein the first computer is configured to convert, transmit and to store in the second computer non-verified or non-verifiable data received by the first computer only in non- processable form.

Stewart discloses at least one computer-to-network connection to connect both the first and second computers to the data communications network independent from the computer-to-computer connection so that receipt of any data from the data communications network is limited to the first computer and transmission of any data to the data communications network is limited to the second computer; wherein at least an initial processing of the data received from the data communications network is limited to the first computer, wherein the first computer is configured to convert, transmit and to store in the second computer non-verified or non-verifiable data received by the first computer only in non- processable form. (Col 3 lines 28-45; Examiner note: Examiner equates imbedded hyperlinks or email addresses, as non-verifiable data)

At the time of invention, it would have been obvious for the back system of Ofek to limit incoming data from the data communication network to be directed to an available sacrificial server before submitted second computer. The motivation would have been to eliminate the threat of new undetectable virus rendering it operable. (Col2 lines 10-28)

As per claim 2, Ofek / Stewart disclose the method of claim 1. Ofek discloses further the computer system as claimed in claim 1, wherein the first computer is configured to verify the received data in the first computer, and wherein the first computer is configured to supply only verified data to the second computer in processable form. (Col 10 line 66-Col 11 line 20)

As per claim 3, Ofek / Stewart disclose the computer system as claimed in claim 1. Ofek discloses wherein the first computer and the second computer are configured to independently verify the received data, and wherein only matching verified data are stored in the second computer in processable form. (Col 11 lines 20-27)

As per claim 4, Ofek / Stewart disclose the computer system as claimed in claim 1. Ofek discloses further comprising: a central data memory, (Col 7 lines 5-16)  
wherein direct access to internal data of the computer system contained in a central data memory is limited to the second computer; and (Col 4 lines 23-41)

wherein the first computer is configured to receive the internal data only upon request via the second computer. (Col 7 lines 5-16)

As per claims 5 and 21, Ofek / Stewart disclose the computer system as claimed in claim 1. Ofek discloses further comprising the computer system as claimed in claim 1, further comprising: an independent, redundant third computer; and (Col 11 lines 45-67)

wherein the second computer is configured to match with the third computer by comparing the second work result of the second computer with a third work result of the third computer. (Col 7 line 64-Col 8 line 10; Col 10 line 66-Col 11 line 20)

As per claim 6, Ofek discloses a method, comprising:

producing a first work result representing the verified data; (Col 7 line 64-Col 8 line 10)

in the second computer, independently verifying the verified data forwarded from the first computer and producing a second work result based on the independent verification; comparing the first work result with the second work result; (Col 7 line 64 – Col 8 line 10; Col 10 line 66-Col 11 line 20; resynchronizes system based on valid bit patterns (work result) of local and remote system)

if the first work result and the second work result match, storing the verified data in the second computer; and (Col 11 lines 28-32)

Ofek fails to disclose in a first computer, classifying data received from a data communications network as verified data and non-verified data, converting the non-verified data into a non-processable form by the first computer; forwarding the verified data in processable form and the non-verified data in the non-processable form from the first computer to a second computer via a computer-to-computer connection; and limiting receipt of any data from the data communication network to the first computer and limiting transmission of any data to the data communications network to the second computer, via at least one computer-to-network connection independent of the computer-to-computer connection.

Stewart discloses disclose in a first computer, classifying data received from a data communications network as verified data and non-verified data, (Col 2 lines 29-37; Examiner note: the portion of email which are not valid executable components is equated as verified data, Col 3 line 57 – Col 4 line 28; Figure 2: items 208, 210, Figure 2A: item 218; Examiner note: the macros, imbedded hyperlinks, and email addresses – equated as non-verified data are differently)

converting the non-verified data into a non-processable form by the first computer; forwarding the verified data in processable form and the non-verified data in the non-processable form from the first computer to a second computer via a computer-to-computer connection; and (Col 3 lines 28-45; Examiner note: Examiner equates imbedded hyperlinks or email addresses, as non-verifiable data)

limiting receipt of any data from the data communication network to the first computer and limiting transmission of any data to the data communications network to the second computer, via at least one computer-to-network connection independent of the computer-to- computer connection. (Col 3 lines 28-45)

At the time of invention, it would have been obvious for the back system of Ofek to limit incoming data from the data communication network to be directed to an available sacrificial server before submitted second computer. The motivation would have been to eliminate the threat of new undetectable virus rendering it operable. (Col2 lines 10-28)

As per claim 8, Ofek / Stewart disclose the method of claim 6. Ofek discloses wherein only the second computer directly accesses internal data contained in a central data memory, and wherein the first computer indirectly accesses the internal data only upon request via the second computer. (Col 7 lines 5-16)

As per claim 9, Ofek / Stewart disclose the method of claim 6. Ofek discloses the method of claim 6, further comprising matching the second work result of the second computer with a third work result of a third computer. ( Col 7 line 64-Col 8 line 10; Col 10 line 66-Col 11 line 20; Col 11 lines 56-67)



As per claims 10 and 16, Ofek / Stewart disclose the computer system as claimed in claim 1. Stewart discloses wherein connection between the first computer and the second computer forms an internal network of the computer system and wherein the data communications network is an external network with respect to the computer system. (Col 3 lines 28-45)

As per claim 11, Ofek / Stewart disclose the computer system as claimed in claim 1. Ofek discloses wherein the first computer independently verifies the received data producing the first work result and wherein the second computer independently verifies the received data producing the second work result. (Col 7 line 64 – Col 8 line 10)

As per claim 12, Ofek / Stewart disclose the computer system as claimed in claim 1. Ofek discloses wherein data processed by the first computer produces the first work result and wherein data processed by the second computer produces the second work result. (Col 7 line 64-Col 8 line 10)

As per claim 13, Ofek / Stewart disclose the computer system as claimed in claim 12. Ofek discloses wherein the first and second work results are produced by executing at least one of horizontal parity checks and parallel balancing. (Col 10 line 66-Col 11 line 20)

As per claims 14 and 19, Ofek / Stewart disclose the computer system as claimed in claim 1. Ofek discloses wherein said matching by the first computer with the second computer is performed at an end of a program or when memory is being accessed. (Col 4 lines 1-22; Upon completion of the backup operation, the copy program is enabled to copy data blocks from the first data storage facility to the second data storage facility corresponding to the recorded identifications thereby reestablishing the second data storage facility as a mirror of the first data storage facility)

As per claims 15 and 20, Ofek / Stewart disclose the computer system as claimed in claim 1. Stewart discloses wherein all of the initial processing is performed by the first computer. (Col 3 lines 28-45)

As per claim 17, Ofek / Stewart disclose the method as claimed in claim 6. Ofek discloses wherein the first computer independently verifies the received data producing the first work result and wherein the second computer independently verifies the received data producing the second work result. (Col 7 line 64-Col 8 line 10)

As per claim 18, Ofek / Stewart disclose the method as claimed in claim 6. Ofek discloses wherein data processed by the first computer produces the first work result and wherein data processed by the second computer produces the second work result. (Col 7 line 64 – Col 8 line 10)

As per claim 22, Ofek / Stewart disclose the method as claimed in claim 21.

Ofek discloses wherein only the second and third computers have access to internal data of the computer system and wherein the third computer is configured to implement operation and monitoring of an automation system. (Col 7 lines 17-25)

As per claim 6, Ofek discloses a method, comprising:

producing a first work result representing the verified data; (Col 7 line 64-Col 8 line 10)

in the second computer, independently verifying the verified data forwarded from the first computer and producing a second work result based on the independent verification; comparing the first work result with the second work result; (Col 7 line 64 – Col 8 line 10; Col 10 line 66-Col 11 line 20; resynchronizes system based on valid bit patterns (work result) of local and remote system)

if the first work result and the second work result match, storing the verified data in the second computer; and (Col 11 lines 28-32)

Ofek fails to disclose in a first computer, classifying data received from a data communications network as verified data and non-verified data, converting the non-verified data into a non-processable form by the first computer; forwarding the verified data in processable form and the non-verified data in the non-processable form from the first computer to a second computer, wherein receipt of any data from the data communication network is limited to the first computer and wherein transmission of any

data to the data communications network is limited to the second computer, and wherein data received from the data communications network are limited without otherwise limiting forwarding of verified data in processable form and non-verified data in the non-processable form, from the first computer to the second computer.

Stewart discloses in a first computer, classifying data received from a data communications network as verified data and non-verified data, (Col 2 lines 29-37; Examiner note: the portion of email which are not valid executable components is equated as verified data, Col 3 line 57 – Col 4 line 28; Figure 2: items 208, 210, Figure 2A: item 218; Examiner note: the macros, imbedded hyperlinks, and email addresses – equated as non-verified data are differently)

converting the non-verified data into a non-processable form by the first computer; forwarding the verified data in processable form and the non-verified data in the non- processable form from the first computer to a second computer, wherein receipt of any data from the data communication network is limited to the first computer and wherein transmission of any data to the data communications network is limited to the second computer, and wherein data received from the data communications network are limited without otherwise limiting forwarding of verified data in processable form and non-verified data in the non-processable form, from the first computer to the second computer (Col 3 lines 28-56; Examiner equates imbedded hyperlink or email addresses, as non-verifiable data)

At the time of invention, it would have been obvious for the back system of Ofek to limit incoming data from the data communication network to be directed to an available sacrificial server before submitted second computer as taught by Stewart. The motivation would have been to eliminate the threat of new undetectable virus rendering it operable. (Col2 lines 10-28)

Claims 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ofek (US 6,549,921) / Stewart (US 6,901,519) further in view of Rowen et al. - hereinafter Shirley (US 6,567,869)

As per claims 23 and 24. Ofek / Stewart disclose the computer system as claimed in claim 5. Ofek fails to disclose wherein user inputs are supplied via a keyboard or a mouse in parallel to the first computer, the second computer and the third computer. Shirley discloses wherein user inputs are supplied via a keyboard or a mouse in parallel to the first computer, the second computer and the third computer. (Col 2 line 56-Col 3 line 11, Figure 1)

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine for the commands of backup system of Ofek to limit incoming data from the data communication network to be directed to an available sacrificial server before submitted second computer as taught by Stewart to be supplied via a keyboard or a mouse in parallel to the first, second and third computer as taught

by Shirely. . The motivation would have been to prevent using separate computer with terminal emulators. (Col 2 line 56-Col 3 line 11)

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-6 and 8-25 have been considered but are moot in view of the new ground(s) of rejection.

Applicants argue, "Independent claim 1, by way of example, recites, "a computer-to-computer connection between the first computer and the second computer enabling the first computer to match with the second computer by comparing a first work result of the first computer with a second work result of the second computer..." Ofek does not teach or suggest at least this feature of the claimed invention. See also other claims reciting similar features. Instead, Ofek is limited to a second system that simply mirrors the data in the first system by checking status of the storage sets pertaining only to a backup operations and disconnections due to the backup operations (see, col. 10, line 66 through col. 11, line 7). Thus, Ofek is silent regarding "... comparing a first work result of the first computer with a second work result of the second computer...", as recited in claim 1 for example."

Examiner shows that Ofek shows a comparing of work results, and performs the resynchronization based on the value of the vector per Col 7 line 64-Col 8 line 10 and Col 10 line 66-Col 11 line 31 and Figure 6: item 101 in that both local and remote system generate a status (work result) of the corresponding track. Furthermore,

examiner shows per Figure 6: items 102, 106 a comparison process of the 1st and 2<sup>nd</sup> work result and per Col 11 lines 28-32 and per Fig. 6 : item 110 resynchronization based on value of the vector.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chirag R Patel whose telephone number is (571)272-7966. The examiner can normally be reached on Monday to Friday from 8:00AM to 4:30PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph E. Avellino, can be reached on 571-272-3905.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pairedirect.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

/Chirag R Patel/  
Examiner, Art Unit 2454

